

WHAT IS CLAIMED IS:

and altering

1. A method of monitoring_λ transmission quality of a call in a mobile radiotelephone system, comprising the steps of:

measuring properties of a radio channel carrying said call at a plurality of receiver sites to yield a plurality of measurements;

evaluating said measurements;

repeating said measuring step at intervals;

repeating said evaluating step at a variable time interval equal to the smallest_λ value of a set comprising a first_λ value determined ^{time} ~~from~~ ^{as a function of} a measurement indicative of quality of reception at a receiver site presently handling said call, a second_λ value determined ^{time} ~~from~~ ^{as a function of} a measurement indicative of a distance of a mobile station party to said call from said receiver site presently handling said call, and a third_λ value determined ^{time} ~~from~~ ^{as a function of} a difference between a signal strength measurement at said receiver site handling said call and a greatest signal strength measurement at the remaining receiver sites; and

issuing a command ^{to alter} ~~calculated to improve~~ said transmission quality, ^{responsive to said evaluating step}.

and altering

2. An apparatus for monitoring_λ transmission quality of a call in a mobile radiotelephone system comprising:

means for measuring properties of a radio channel carrying said call at a plurality of receiver sites to yield a plurality of measurements;

means for evaluating said measurements;

means for repeating said measuring step at intervals;

means for repeating said evaluating step at a variable time interval equal to the smallest_λ value of a set comprising a first_λ value determined ^{time} ~~from~~ ^{as a function of} a measurement indicative of quality of reception at a receiver site presently handling said call, a second_λ value determined ^{time} ~~from~~ ^{as a function of} a measurement indicative of a distance of a mobile station party to said call from said receiver site presently handling said call, and a third_λ value determined ^{time} ~~from~~ ^{as a function of} a difference between a signal strength measurement at said receiver site handling said call and a greatest signal strength measurement at the remaining receiver sites; and

as a function of
~~from~~ a measurement indicative of a distance of a mobile station party to said call from said receiver site presently handling said call, and a third ^{time} value determined ~~as a~~ ^{function of} ~~from~~ a difference between a signal strength measurement at said receiver site handling said call and a greatest signal strength measurement at the remaining receiver sites; and means for issuing a command ^{to alter} ~~calculated to improve~~ said transmission quality, ^{responsive to said evaluating step}.

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3. A method of monitoring ^{and altering} transmission quality of a call in a mobile radiotelephone system, comprising the steps of:

measuring quality of reception of said call at a cell receiver presently handling said call and at a plurality of neighboring cell receivers;

determining a distance between a mobile station party to said call and said cell receiver presently handling said call;

evaluating:

whether quality of reception is better at a neighboring cell receiver;

whether quality of reception at said cell ~~receiver~~ handling said call is unacceptable; and

whether said distance between said mobile station party to said call and said cell receiver presently handling said call is greater than a predetermined limit;

repeating said measuring step at intervals;

repeating said evaluating step at a variable time interval equal to the smallest ^{time} value of a set comprising a first ^{time} value determined ^{as a function of} ~~from~~ said quality of reception at said cell receiver presently handling said call, a second ^{time} value determined ^{as a function of} ~~from~~ said distance of said mobile station from said cell receiver presently handling said call, and a third ^{time} value determined ^{as a function of} ~~from~~ a difference between quality of

reception at said cell receiver handling said call and a highest quality of reception at the neighboring cell receivers; and

issuing a command ^{to alter} ~~calculated to improve~~ said transmission quality / ~~responsive to said evaluating step,~~

~~4. A method of monitoring transmission quality of a call in a mobile radiotelephone system, comprising the steps of:~~

~~measuring signal strength of said call at a plurality of receiver sites to yield a plurality of signal strength measurements;~~

~~evaluating said signal strength measurements according to criteria of transmission quality;~~

~~repeating said measuring step at intervals;~~

~~repeating said evaluation step at a variable time interval according to the results of a previous evaluation step; and~~

~~issuing a command calculated to improve said transmission quality.~~

5. An apparatus for mobile telephony comprising:
data processing means responsible for transmission quality of radio communications in a plurality of cells;

means for classifying transmission channels into classes according to transmission quality;

means for evaluating transmission quality of different classes of transmission channels at different time intervals; and

means for issuing a command calculated to improve said transmission quality.

6. The apparatus of claim 5 wherein a time interval for evaluating transmission quality of a class of ~~transmission channels previously determined to be of high~~

~~transmission quality is longer than an interval for
evaluating transmission quality of a class of transmission
channels previously determined to be of relatively lower
transmission quality.~~